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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/804,130	03/19/2004	Yoshihiro Hama	P24798	6387
7055	7590	05/03/2005	EXAMINER	
GREENBLUM & BERNSTEIN, P.L.C. 1950 ROLAND CLARKE PLACE RESTON, VA 20191			STULTZ, JESSICA T	
			ART UNIT	PAPER NUMBER
			2873	

DATE MAILED: 05/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/804,130

Applicant(s)

HAMA ET AL.

Examiner

Jessica T. Stultz

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OSU

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☒ Claim(s) 4-8 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 0604.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Specification

The abstract of the disclosure is objected to because it is too long. Specifically, the abstract cannot exceed more than 150 words; therefore it needs to be shortened. Correction is required. See MPEP 37 CFR 1.72.

The disclosure is objected to because of the following informalities: page 10, section 28, "rotation axis 114b" should be "rotation axis 114a" and "reflecting surface 114a" should be "reflecting surface 114b". Appropriate correction is required.

Claim Objections

Claim 1 is objected to because of the following informalities: lines 4-5, "frame with contacting" should be "frame contacting"; line 9, "an other end portion" should be "another end portion". Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by Sudoh.

Regarding claim 1, Sudoh discloses a lens unit for a scanning device (Section 43, wherein the device is a scanning device), comprising: a frame having a hollow cylindrical shape, the frame being defined with a lens contact portion therein (Section 49, wherein the lens barrel

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“232” holds lens “110”, Figures 1-9); a lens accommodated in the frame contacting the lens portion defined in the frame (Section 49, wherein the lens “110”, contacts the lens portion of barrel “232”, Figure 9); and a retainer accommodated in the frame to retain the lens in position, wherein the retainer has a cylindrical shape (Sections 28-31 and 49, wherein the retainer is “100”, Figures 1-9), one end side face of the retainer contacting a peripheral portion of the lens received by the frame, another end portion of the retainer being secured to the frame so that the retainer presses the lens toward the lens contact portion of the frame to fix the lens to the frame (Shown in Figures 1-9), wherein deformation of the frame, lens, and retainer due to the load generated as the retainer presses the lens absorbs deformation of the frame, lens and retainer due to temperature change at least within a predetermined temperature range so that a fixed status of the lens with respect to the frame is not released due to the temperature change within the predetermined temperature range (Sections 28-31 and 49, wherein the thermal deformation is absorbed by the deformation due to the gravitational load placed on the retainer, Figures 1-9).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sudoh.

Regarding claim 2, Sudoh further discloses that the scanning device scans light beams from a light emitting element on a scan target surface (Sections 42-45, wherein the light source “212” emits light onto a target surface “245”, Figure 4), but does not specifically disclose that

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the scanning system is a multibeam scanning device from multiple light emitting elements. However, it is well known in the art of scanning devices for the light beams to come from multiple light emitting elements to produce multiple beams for the purpose of providing different colored beams with different wavelengths and frequencies. Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made for the scanning device to further be a multibeam scanning device from multiple light emitting elements since it is well known in the art of scanning devices for the light beams to come from multiple light emitting elements to produce multiple beams for the purpose of providing different colored beams with different wavelengths and frequencies.

Regarding claim 3, Sudoh further discloses that the other end portion of the retainer is formed of an engaging portion, wherein an inner surface of the frame at a portion facing the other end portion of the retainer is formed of an engaging portion to engage with the engaging portion of the retainer (Section 49, wherein the retainer "100" is connected to the lens barrel "232" by a spring "122", Figure 9), but does not specifically disclose that the engaging portions are a screw and screw thread portion, respectively. Examiner takes judicial notice that a screw can be used in place of a spring to engage a retaining portion to a frame of a lens barrel for the purpose of providing adjustment between the retainer ring and the frame to adjust for deformations. Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made for the lens unit of Sudoh to further include engaging portions which are a screw and screw thread portion, since the examiner takes judicial notice that a screw can be used in place of a spring to engage a retaining portion to a frame of a lens barrel for the

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purpose of providing adjustment between the retainer ring and the frame to adjust for deformations.

Allowable Subject Matter

Claims 4-8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is an examiner's statement of reasons for allowance: none of the prior art alone or in combination disclose or teach of the claimed combination of limitations to warrant a rejection under 35 USC 102 or 103.

Regarding claims 4-8, none of the prior art alone or in combination disclose or teach of a lens unit as disclosed specifically wherein the linear expansion coefficient, elastic modulus, and cross-sectional area of the lens, frame and retainer satisfy the claimed condition.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Shibazaki and Ebinuma et al are cited as having some similar structure to the claimed invention. Yamada is cited to show that it is well known in the art of lens units for a screw to be used to engage a retaining portion to a frame of a lens barrel.

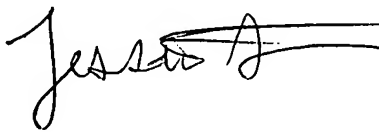
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jessica T. Stultz whose telephone number is (571) 272-2339.

The examiner can normally be reached on M-F 8-4:30.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Georgia Epps can be reached on 571-272-2328. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jessica Stultz
Patent Examiner
AU 2873
April 28, 2005



JORDAN SCHWARTZ
PRIMARY EXAMINER